XYZware User Manual for Mac

Announcement

Limitation of Liability Clause

Although it is our intention to produce a manual and product functions that are correct and stable, in no event shall XYZprinting be liable for any direct, special, indirect, incidental, consequential damages (including data loss of your computer). It is strongly recommended to backup or move your important data before using this software to prevent data loss and corruption.

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Printing History

Reprints of this manual's edition number may incorporate changed material since last release. Minor corrections and updates may be incorporated without changing the publication date or edition number.

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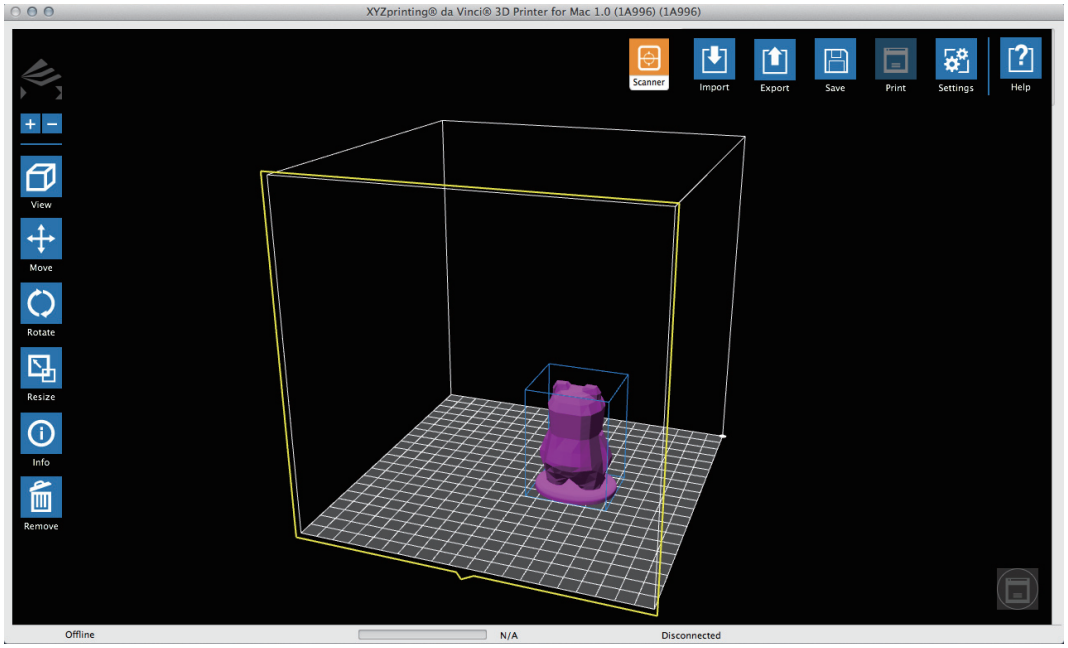
1. About XYZware



XYZware is a brand new application introduced by XYZprinting for designing, customizing and printing digital 3D Models. It can import objects in “*.stl” file format and create realistic simulated objects.

XYZware is also used with the da Vinci 3D printer series, introduced by XYZprinting to quickly print outreal products. XYZware removes the technical barriers of traditional production resulting in an enriched “Creative Life” for the modern Digital Family.

For Mac OS users
Mac OS users may find compatible software on the master CD supplied with the printer or the website.For information of latest version or technical support, please go to XYZprinting website:http://support.xyzprinting.com/

2. System Requirements

Please ensure your Operating System is compatible with the following requirements.

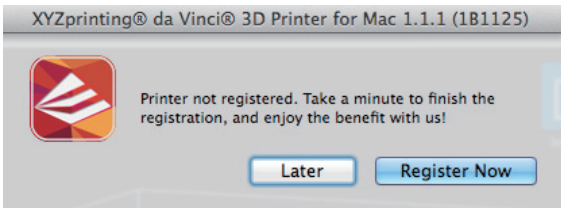
Software	Operating System	(PC) Windows XP (.Net 4.0 required) Windows 7 / Windows 8 above
		(Mac) Mac OSX 10.8 64-bit above
Hardware	Hardware Requirements	Minimum System Requirements: Memory: 512MB, Storage: 100MB or More Monitor Resolution: 1024 x 768
		Recommended System Requirements: Memory: 2GB, Storage: 500MB or More

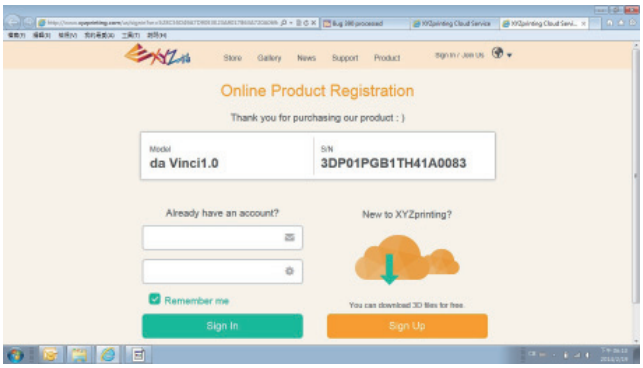
Online Registration

XYZware software will request that you register your da Vinci 3D Printer 1.0A series when it is first connected to the Mac. We recommend that you take the time to register your product. Periodic updates are made available through the XYZware software and the internet. Registration will permit any updates to complete automatically.

Step 1. On XYZware, press "Register Now"

Step 2. On the registration page in XYZware, fill in all required information to complete the process.


XYZprinting® da Vinci® 3D Printer for Mac 1.1.1 (1B1125)
Printer not registered. Take a minute to finish the registration, and enjoy the benefit with us!
Later
Register Now



3. Quick Start

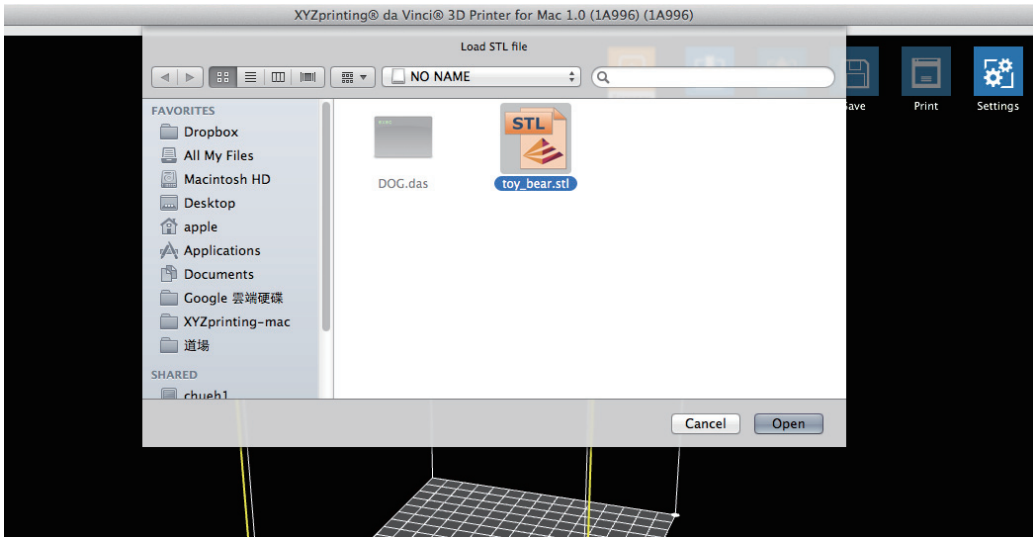
Use this document as a guide to the 3D printing process. Before running the XYZware software on your Mac; it is recommended to connect the USB cable from Mac to printer.

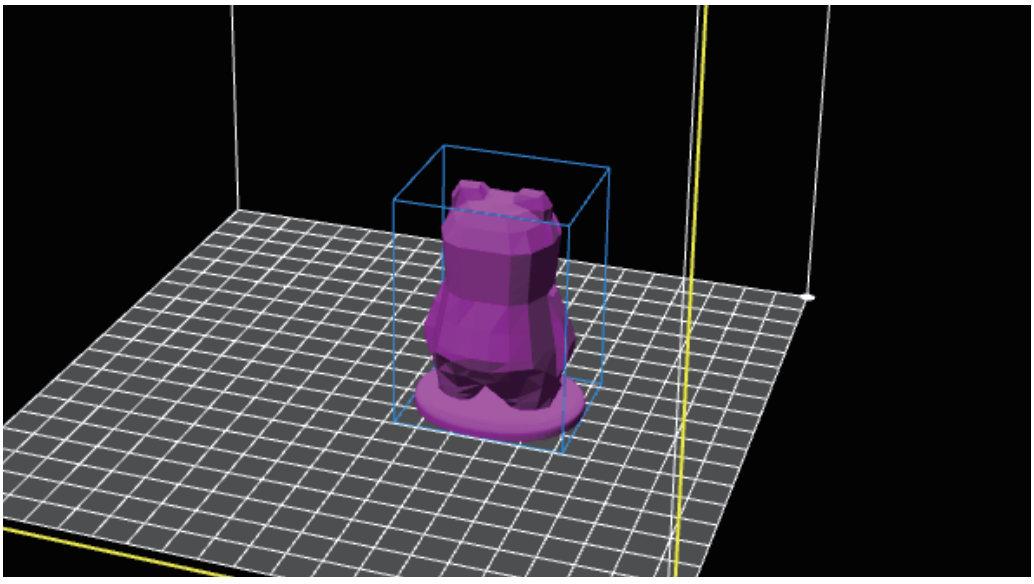
Before importing .stl file, it is advised to check the "Service Preference" on upper left side. You may select display language, other settings for a smoother operation. See "8. Setting and Update" for detailed description on Setting. The following is the demonstration of quick printing with da Vinci 1.0A series printer:

3.1 Print Single-Color Model(s)

Print Your First Object

Click on the “Import” icon to select files to be 3D printed. The following instructions use “toy_bear.stl” as an example on how to print your 3D object.

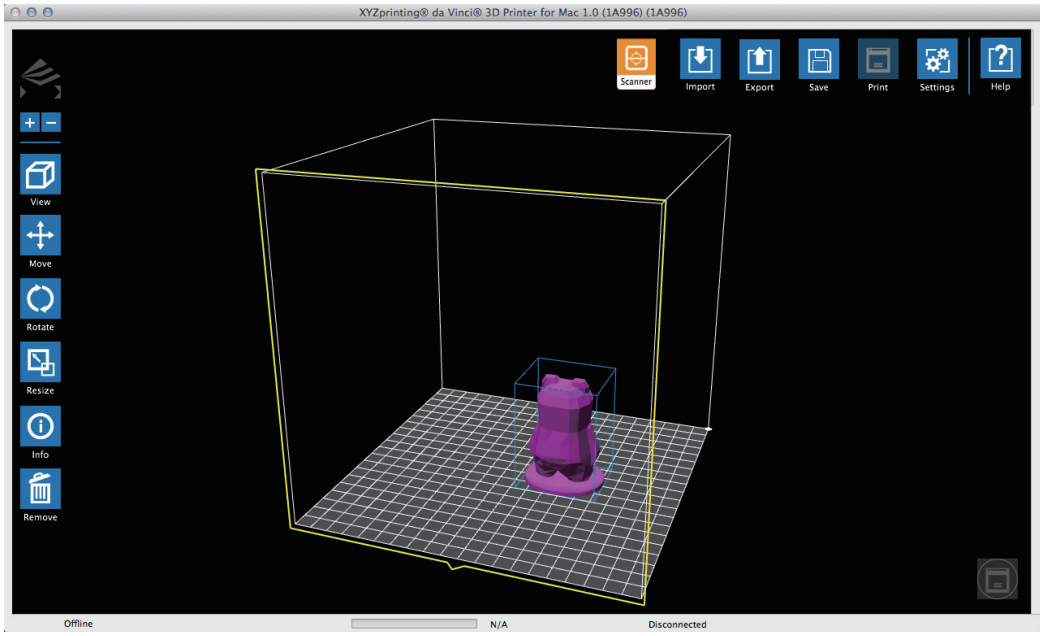




(Sample file: toy_bear.stl)

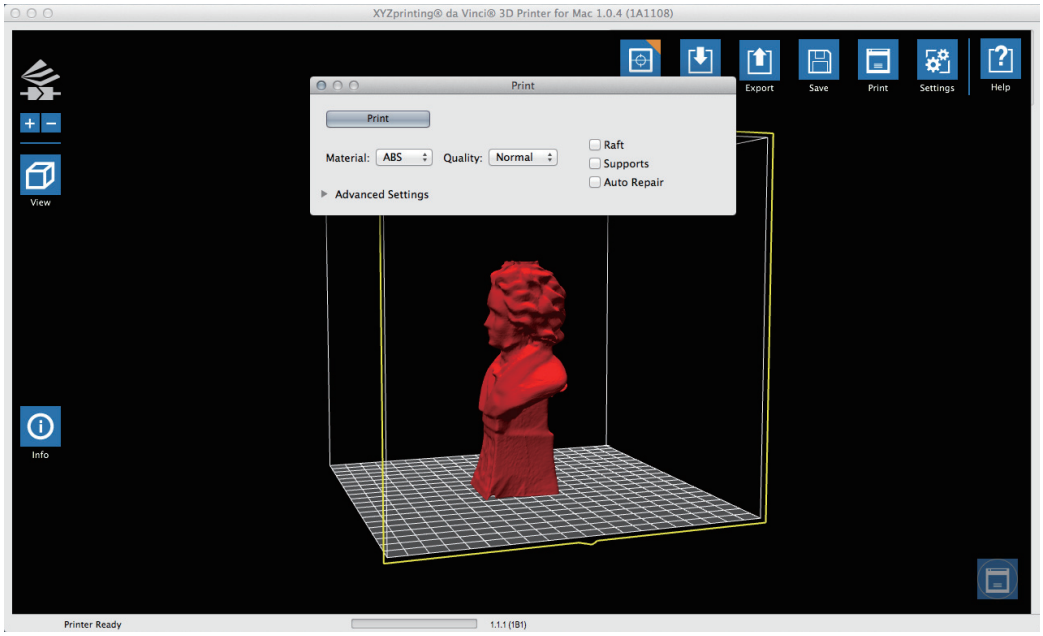
Edit and Adjustment

You can move, resize or rotate the object by using the icons displayed on the left hand side. Please refer to the next chapter “Functions” for detailed description.



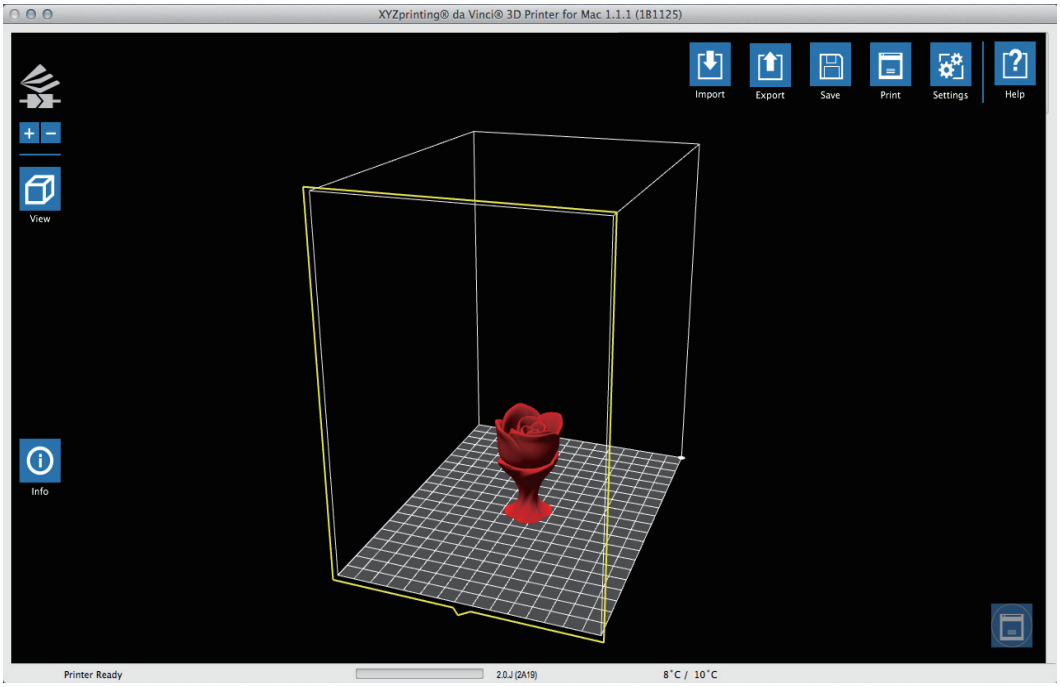
Printing Objects

After you have completed editing your object, click on the “Print” icon to prepare your file. The print settings can be changed to suit your requirements, for more details on this please refer to Chapter “Printing Setup”.

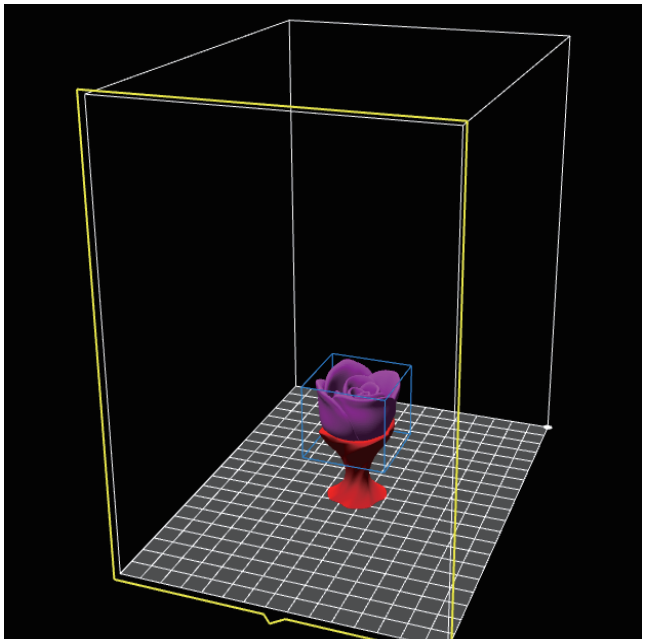


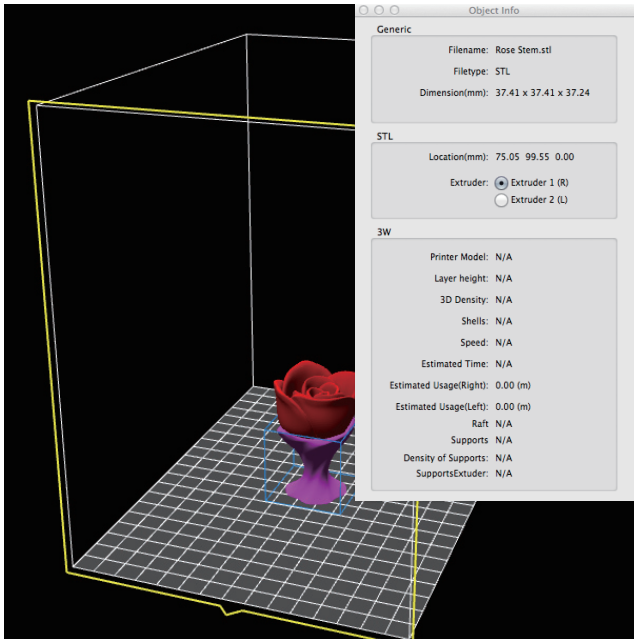
3.2 Print Dual-Color Model(s)

To print a dual-color model from da Vinci 2.0A Duo series, it is necessary to import 2 separated .stl objects that made up a complete model.



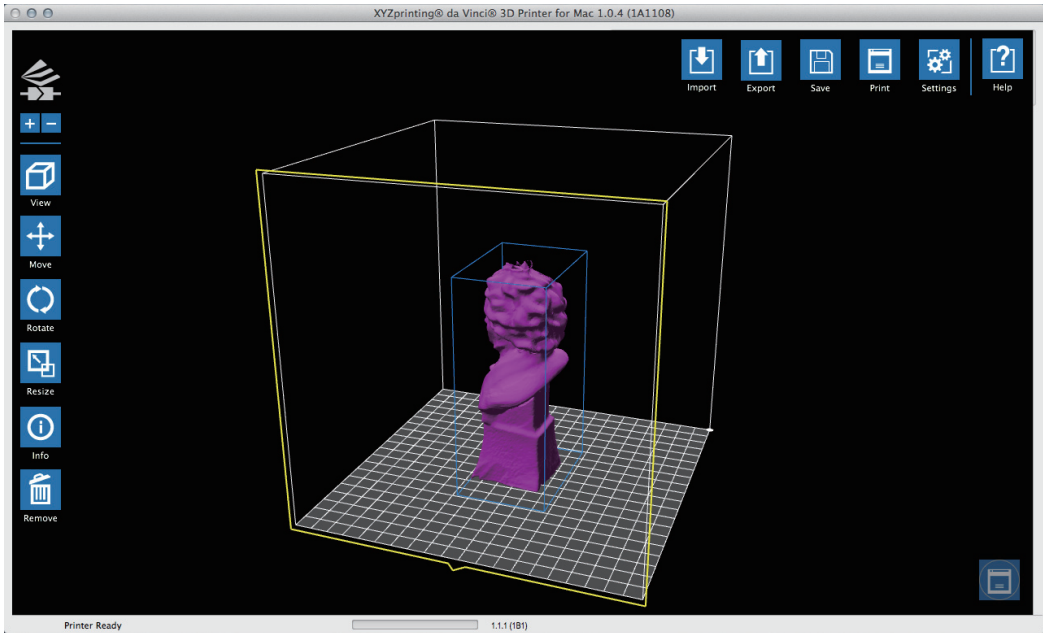
By default, all .stl files will be printed from extruder 1. You may assign one object to be printed from extruder 2.





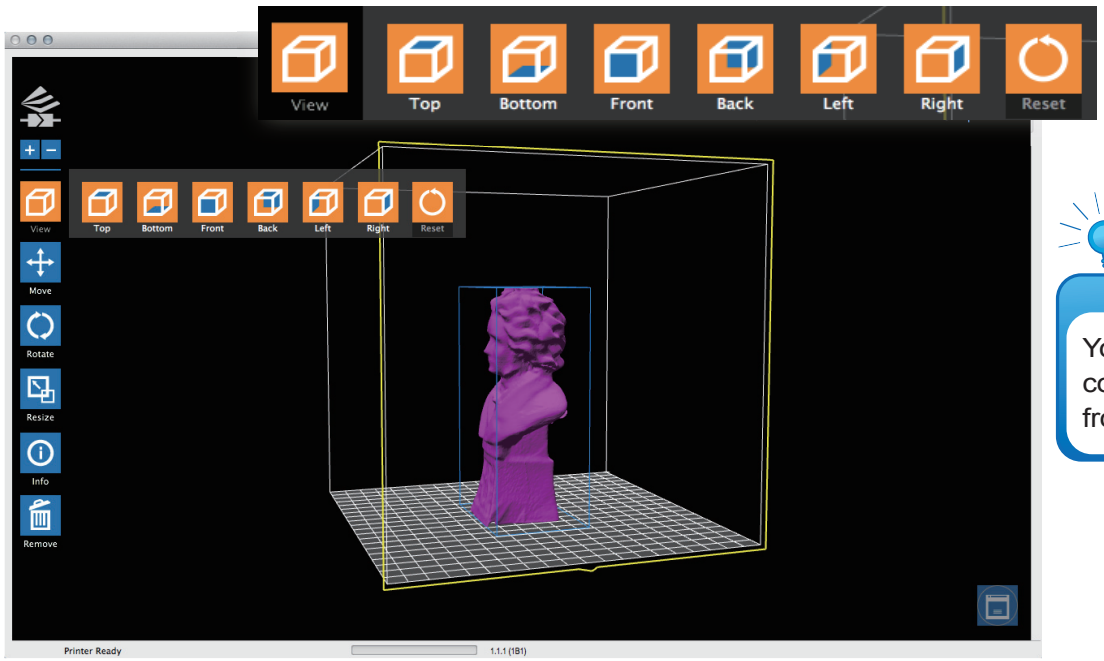
4. Functions

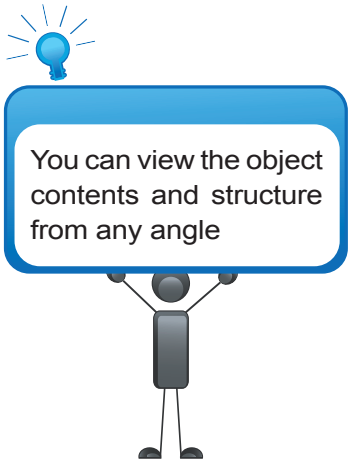
In this chapter we will explain the function of the icons on the left hand side.



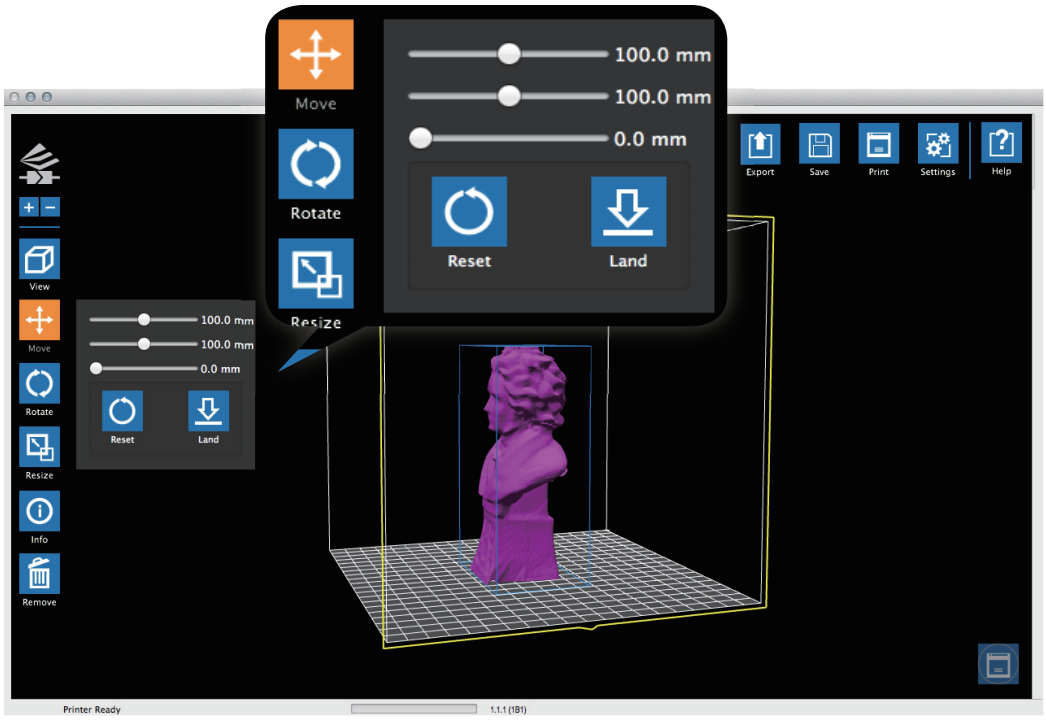
4.1 View

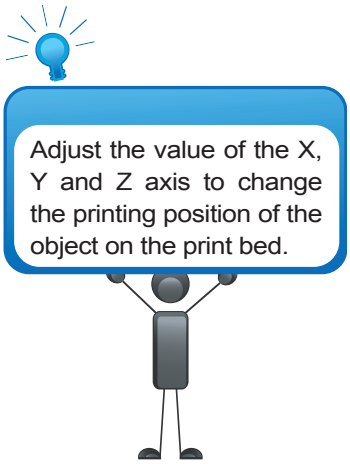
Alternative: Switch the views by clicking and dragging the mouse.



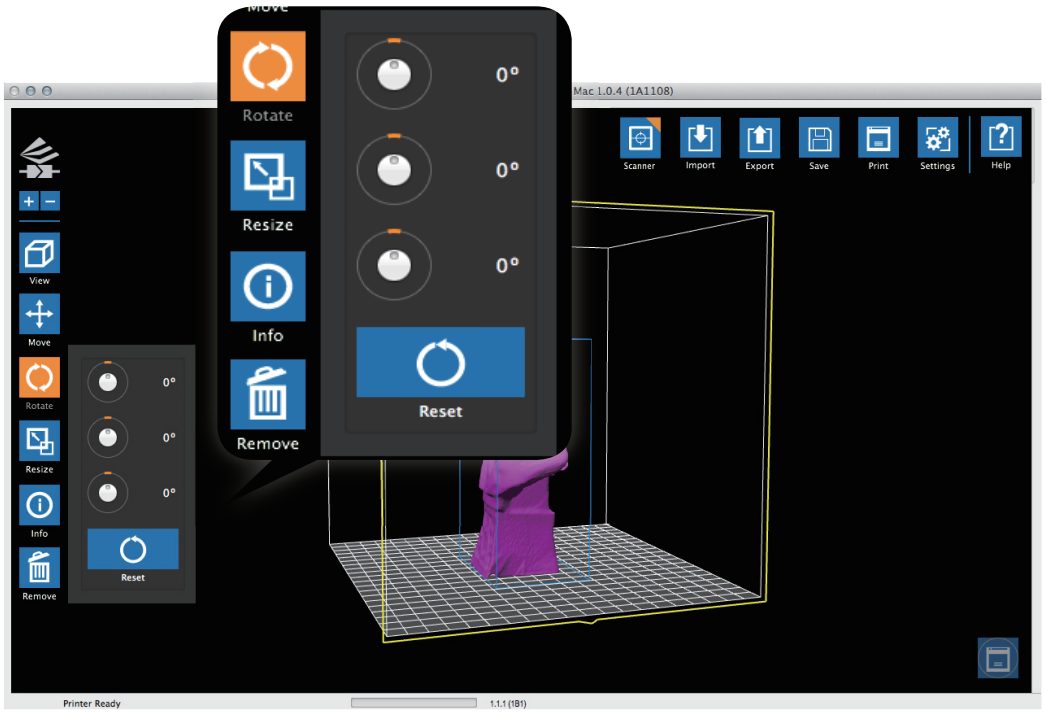


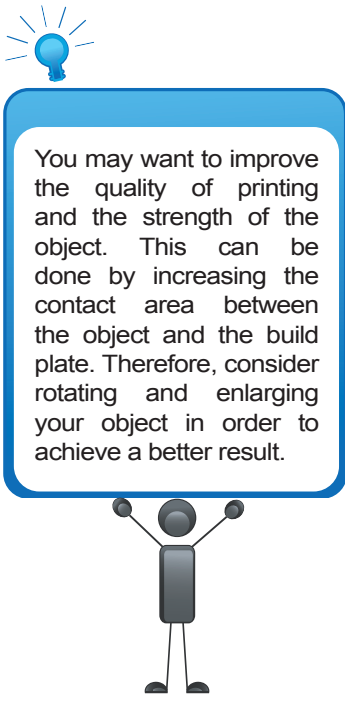
4.2 Move



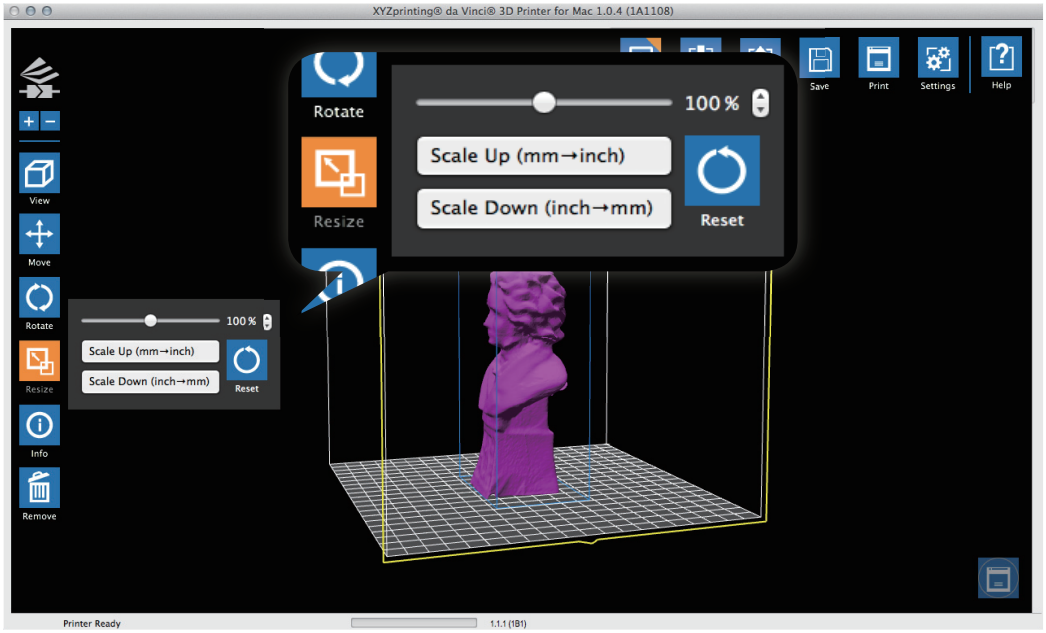


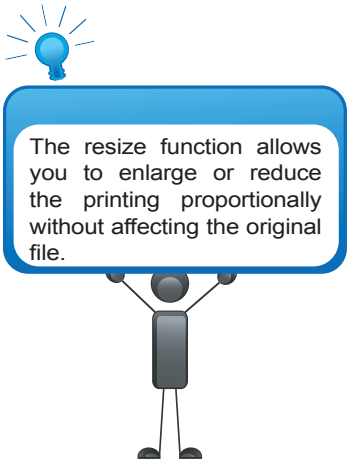
4.3 Rotate




You may want to improve the quality of printing and the strength of the object. This can be done by increasing the contact area between the object and the build plate. Therefore, consider rotating and enlarging your object in order to achieve a better result.

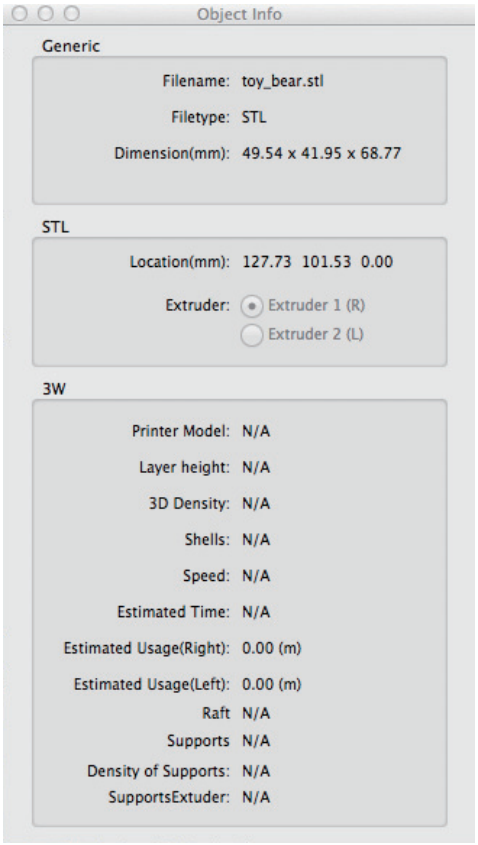
4.4 Resize

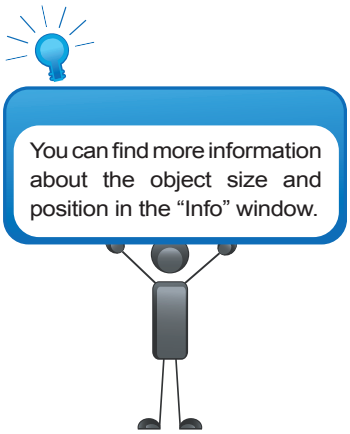




4.5 Info

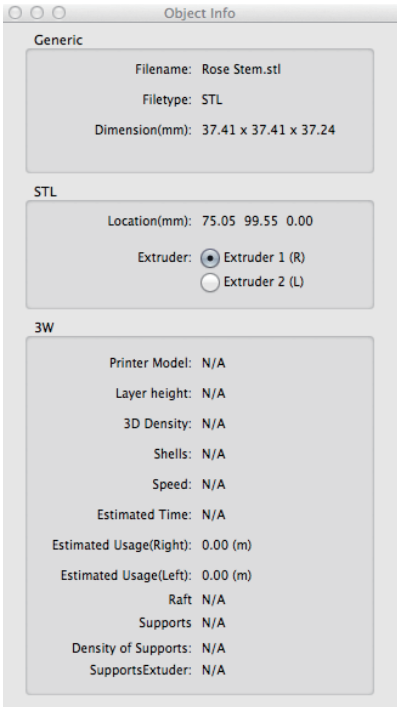
View info of .stl on da Vinci 1.0A print bed





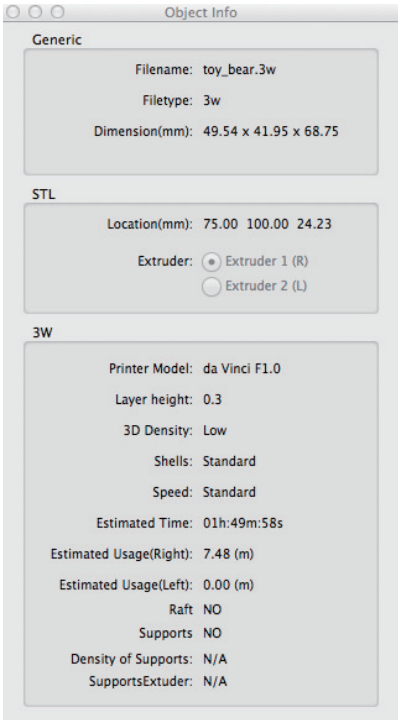
View info of .stl on da Vinci 2.0A Duo print bed

To reassign the extruder for output a .stl file, you may select the extruder in the window.

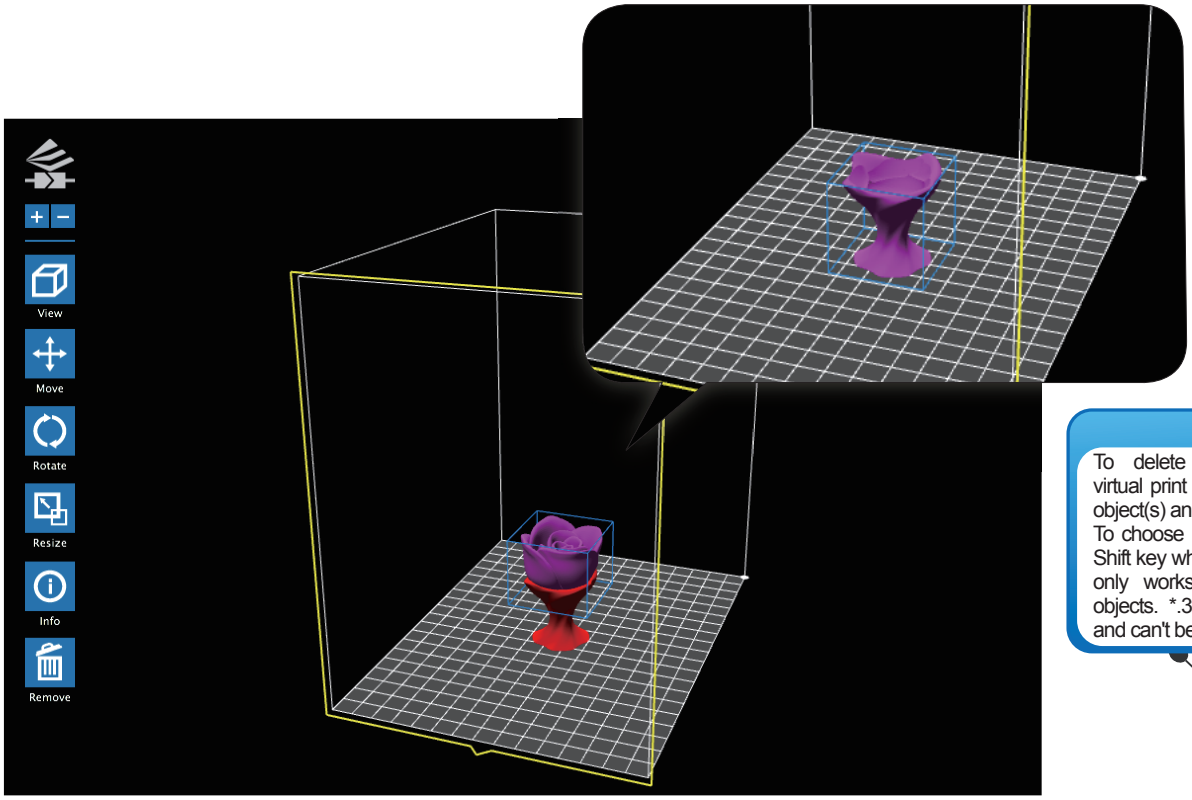


View info of .3w file

This window shows the printing settings while exporting the file. To change any printing settings of the file, please import the original .stl and export to *.3w with a new set of print preferences.



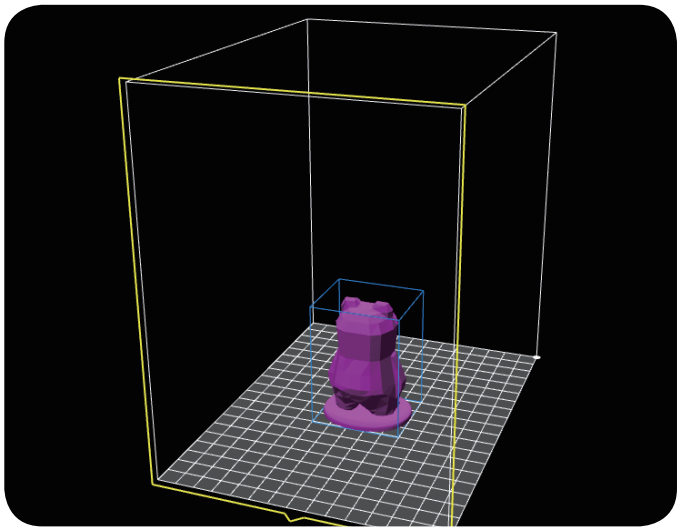
4.6 Remove

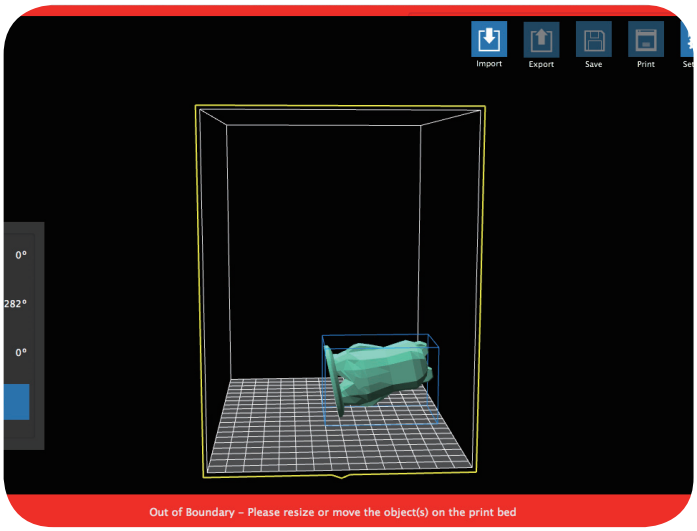


To delete model(s) from the virtual print bed, simply select the object(s) and click "Remove".
To choose multiple objects, press Shift key while selecting. (Remove only works with STL imported objects. *.3w imports are locked and can't be removed.)

4.7 Reminder

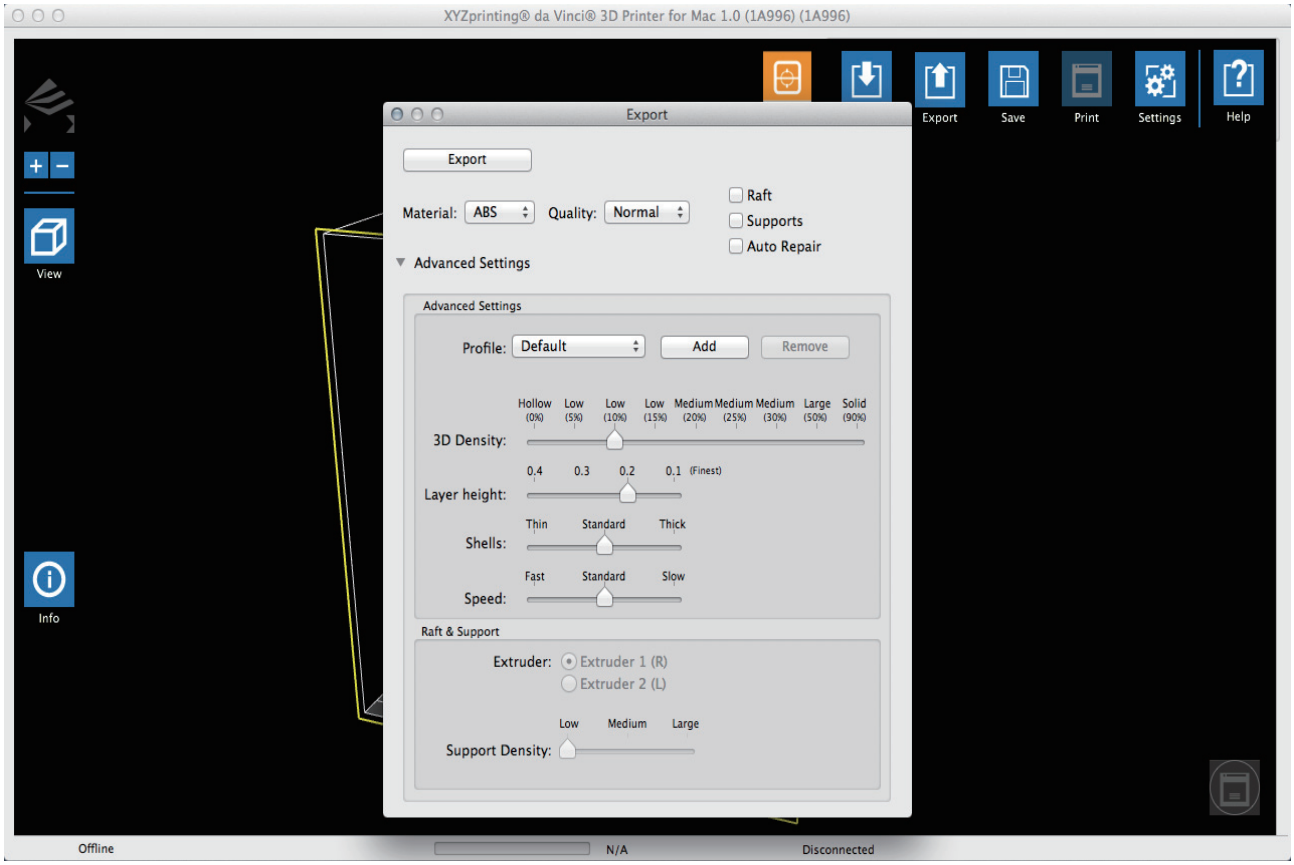
The XYZware will automatically find any inappropriately positioned object and mark it with a distinguishing color, this prevents the object from being printed off the print bed.





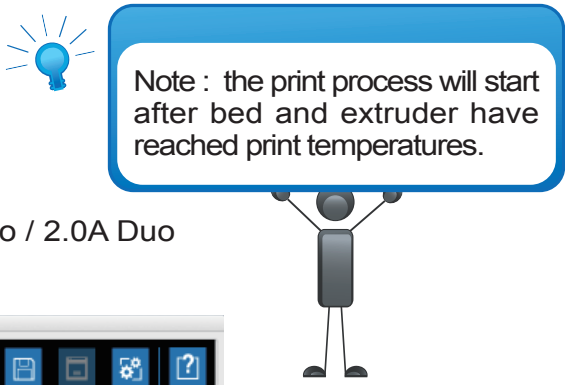
5. Print Setup

You can modify the printing results by changing the printing preferences. For example by setting the print speed to slow and checking the “Supports” box will result in a fine print quality.



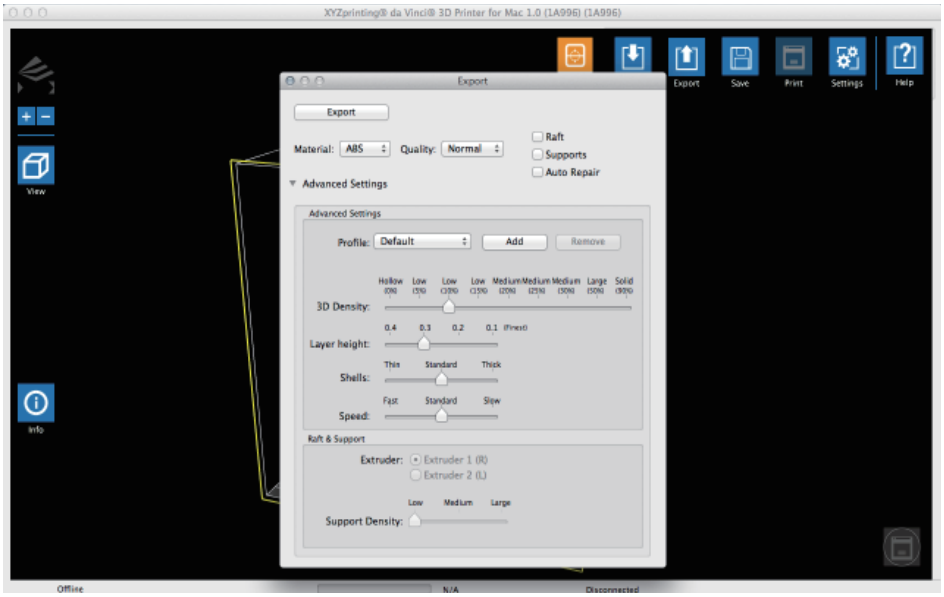
5.1 Print

Start object printing.



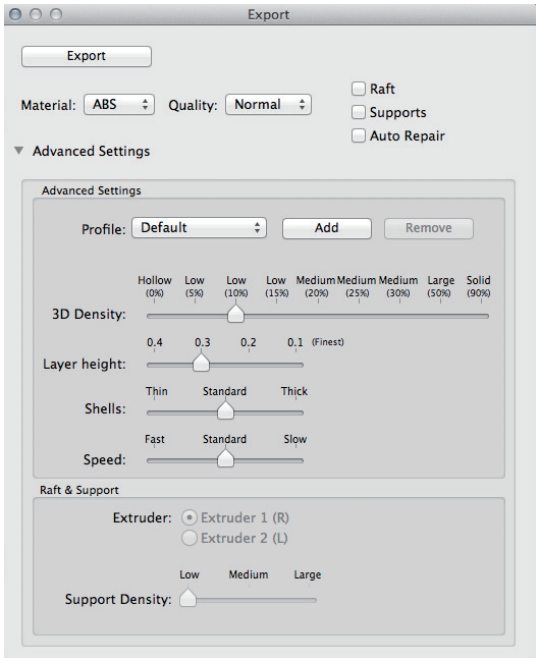
5.2 Printer

Select da Vinci 1.0 / 1.0A / 1.0AiO, da Vinci 2.0 Duo / 2.0A Duo series for output.



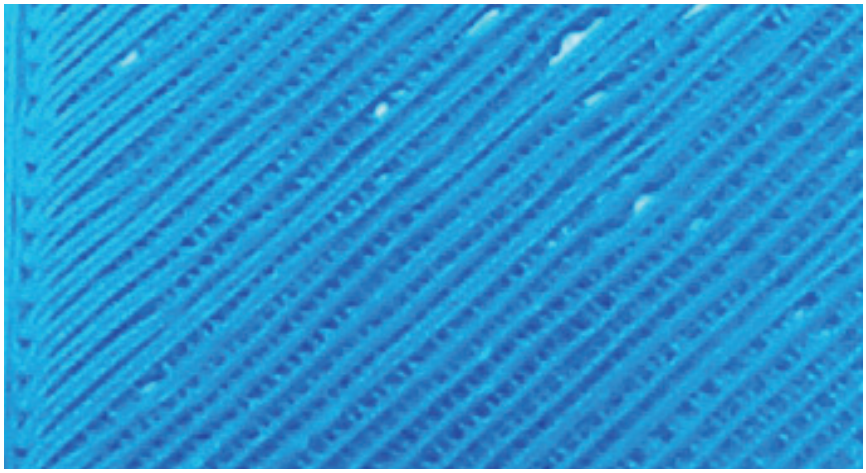
5.3 Quality

Print quality will impact the estimated time it will take for an object to print. For example, high quality prints will take longer to make than low quality prints as each layer printed is thinner creating a more detailed finish.



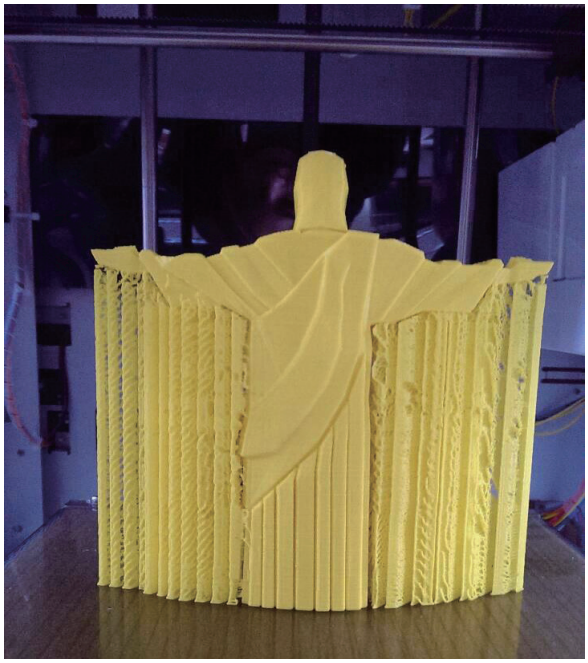
5.4 Raft

Printing thinner and longer objects require more attention due to the shapes physical instability, the object may buckle or twist under its own weight. When printing long thin objects consider increasing the area of contact between your object and the print bed by checking the “Raft” box. Rafts create stability and can be removed after your object has been printed.

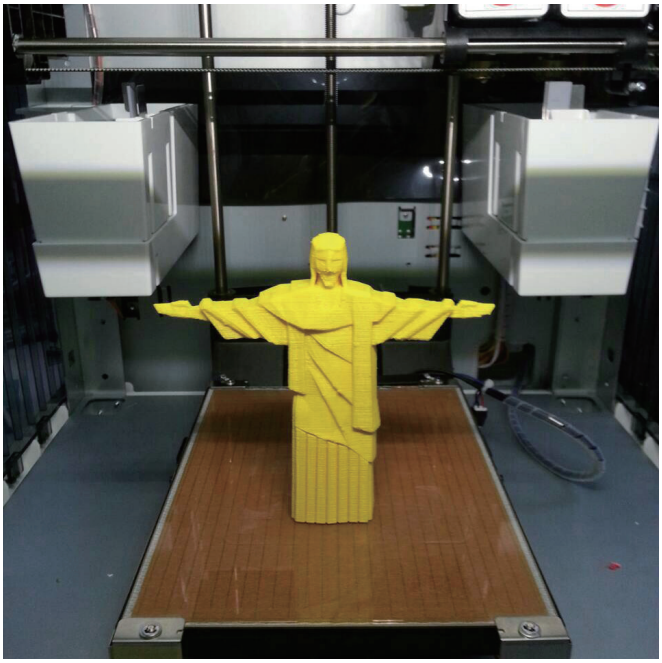


5.5 Support

The supportive structures are printed according to the objects features. Support is used to create structural strength and ensure that your model does not collapse during the printing process.



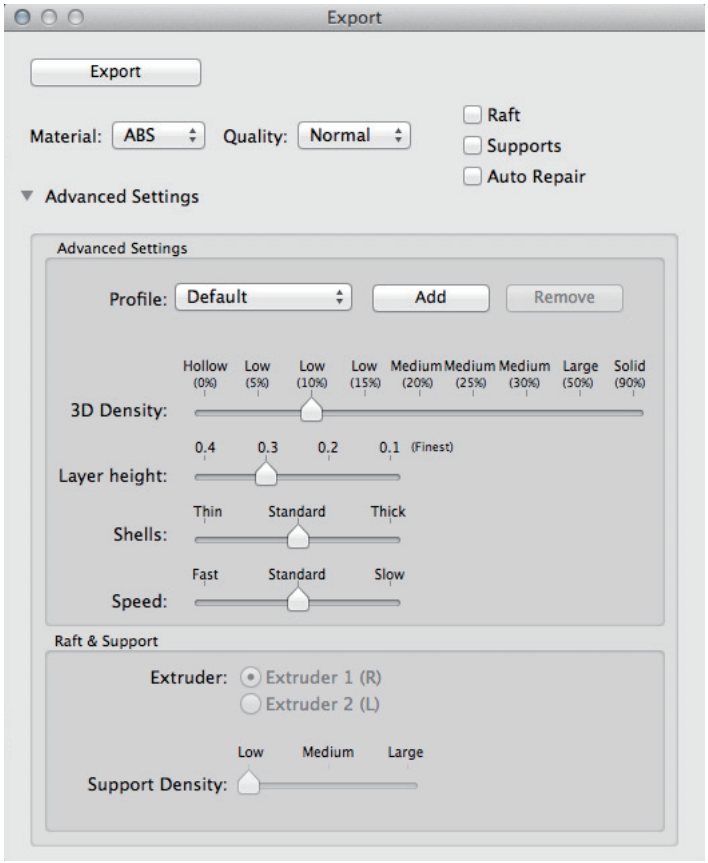
Model with support (rear view)



Support is removed

5.6 Advanced Settings

Click on the “Advanced” button for more printing options.

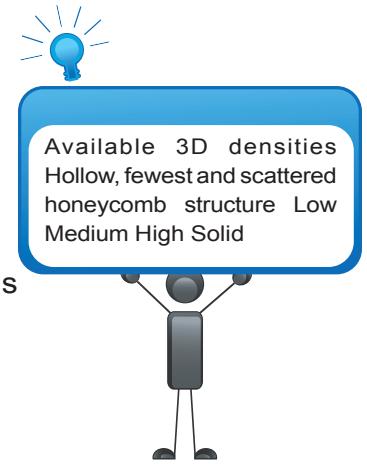


5.7 Profiles

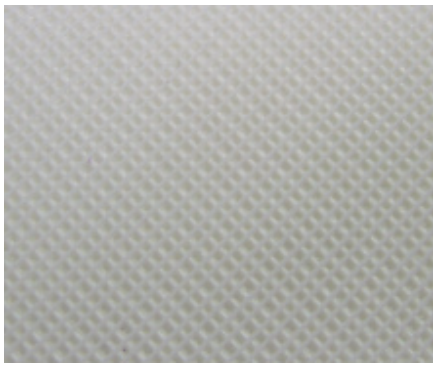
Add or select saved printing preferences through the “Profiles” pull-down menu. Different printing preferences can be created, saved and applied to different models depending on the project requirements.

5.8 3D Density

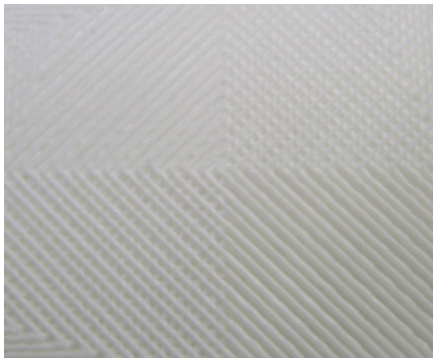
Before printing, users may use this function to adjust the print density of the object(s). The default printer setting on the da Vinci 3D printer will create the internal structure of the object(s) based on honeycomb structures. Using the 3D density pull-down menu, you can adjust the honeycomb structure density from hollow to high to create desired strength requirements.



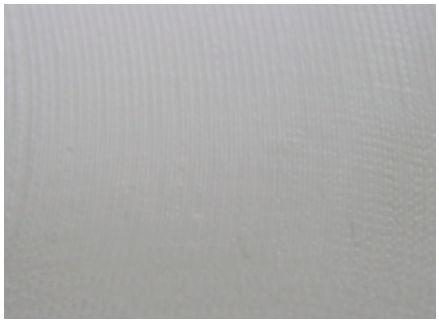
Low (10%) - this setting requires shorter printing time, but the structure is relatively weak. The setting is suitable for decorative objects.



Medium (30%) - The selection gives higher strength to the structure than low density. To print an object for mechanical purpose, it is advised to set the density to 30% or above.



High (50%) - For the object which should be durable or will be used as functional mechanical part, it is suggested to select higher density.

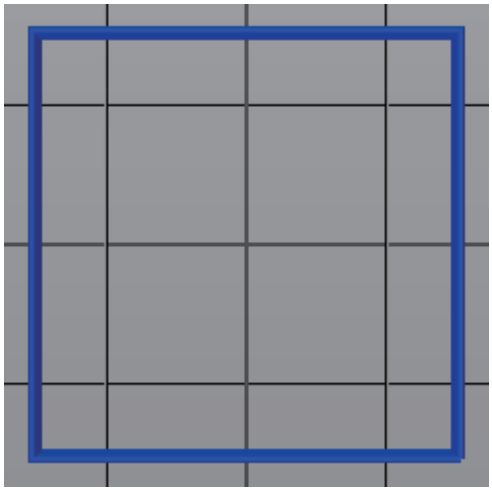


Solid (90%) - High dense object is more durable. However it takes longer and need more filament for printing.

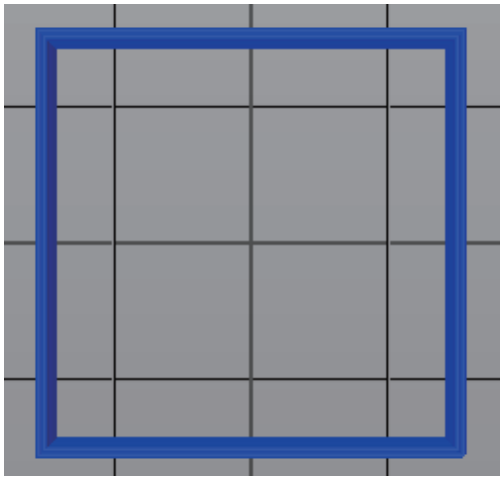
5.9 Shells

Shells are the outer layer of the object. Thick shells end in better printing quality but take longer for printing. Thin shells shorten the duration of printing but may be vulnerable to break.

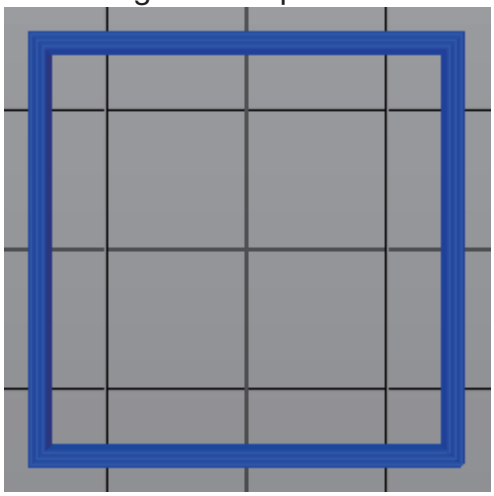
Thin: Single layer is outlined under the setting.



Normal: The outer structure is consisted of 2 layers. Extra layer strengthens objects.



Thick: Thick shell is made up of 3 layers. The strengthened structure is more sustain, but it takes longer for output.



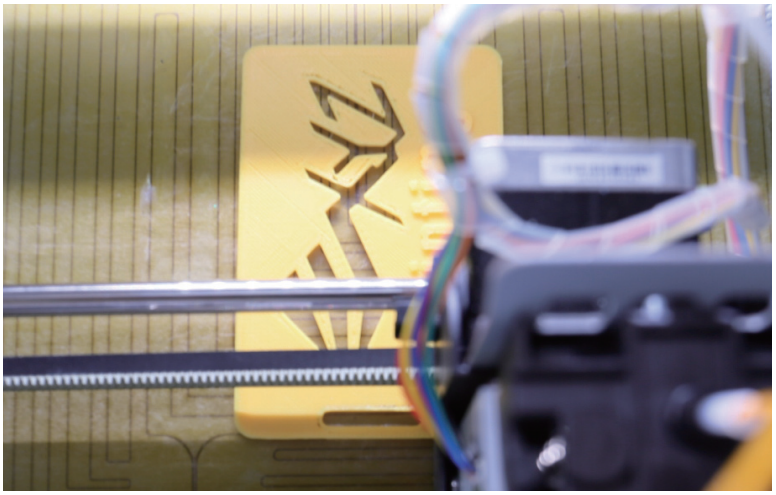
The strength of the object is affected by the setting of 3D density and shell. To ensure the sustainability of objects of different size, shape and purpose, different density and shell settings will be required.

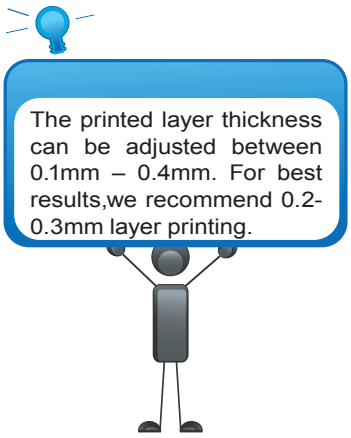
Here are some suggestion on density and shell settings:

3D Density / Shell	Hollow (0%)	Low (10%)	Medium (30%)	High (50%)	Solid (90%)
Thin	Smaller, hollow display	Smaller, flat detailed display	Smaller, flat detailed, durable parts		
Normal					
Thick	Larger, hollow display	Large, taller display	Larger, durable parts		

5.10 Layer Height

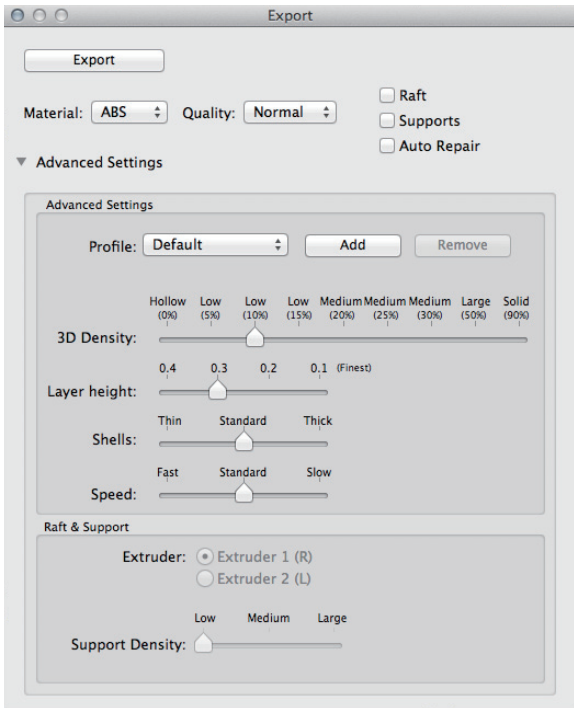
By setting different layer heights, you can alter the thickness of each layer that your printer creates.

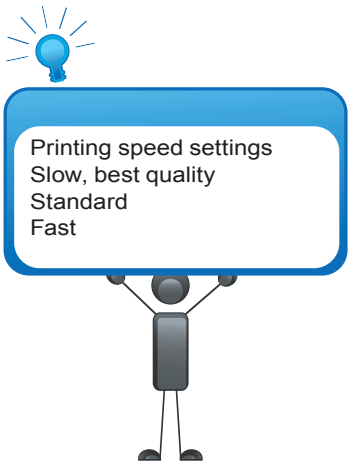




5.11 Speed

Use the printing speed adjustment to change the settings based on the size and precision of the object. In general a better object quality is accompanied with a lower printing speed.



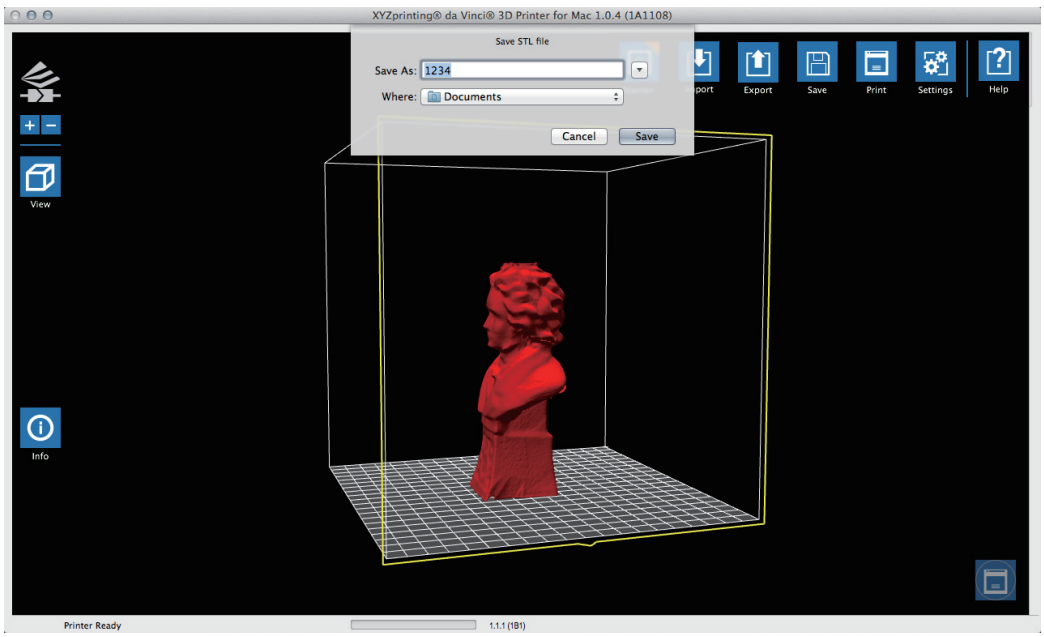


6. Other Functions

Once you have finished customising your object to your preferences, it can be 3D printed or saved for future use.

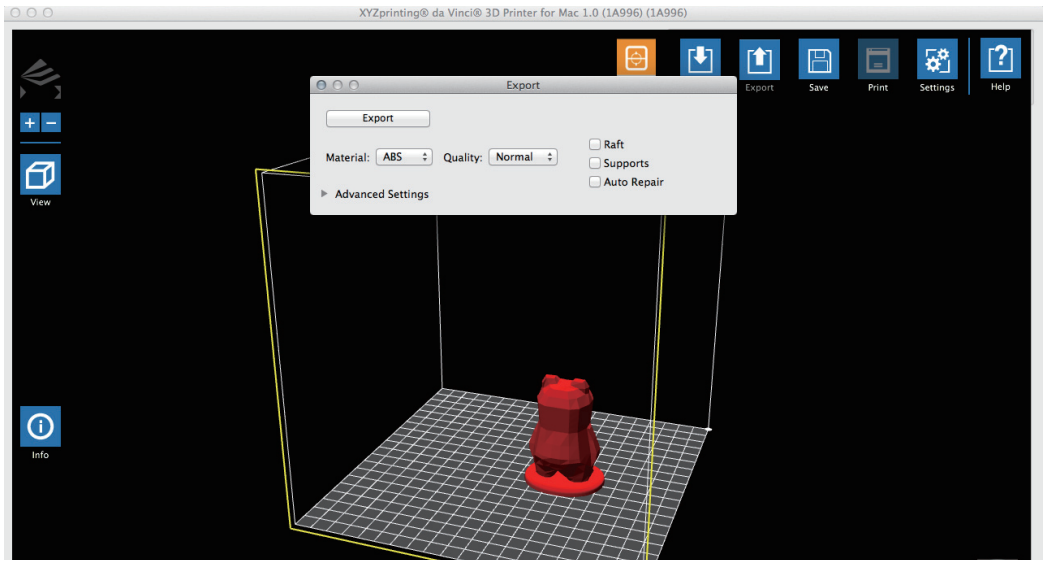
6.1 File Saving

Click on “Save”, the XYZware will save the file as an *.stl format.



6.2 File Export

Select “Export”, the XYZware will save the file as a *.3w format. .3w is the specific file format that is developed solely for the "da Vinci" series 3D printers. Programs like XYZware will make slicing calculations from STL files and store the printing profile within .3w file, which will speed up your next 3D printing project.



7. Settings and Update

7.1 Switch Language

The XYZware supports multiple languages. You can use the pull-down menu to select a language for your XYZware. After selecting a language preference the change will be instant.

7.2 Printer Type Setup

Please select the printer in use from the drop-down list. The size of print bed will be changed according to the selected printer.

7.3 Auto Position Objects

Enabling this function when printing with da Vinci 1.0A series, XYZware will cause the imported objects to shift where they land on the print bed to avoid landing on top of each other. It is recommended to disable this function when using da Vinci 2.0A Duo series 3D printer thus landing both imports at the center of the print bed and combining to become one dual filament object avoiding having to reposition the objects after importing.

7.4 Firmware Update

For the best 3D printing experience, please keep the software and/or firmware updated. XYZware will auto-detect newer version software for updating. Update firmware is simple: click "Help" icon and click “Update Firmware” button for updating.

Note: make sure to confirm Internet access on the PC before using the about and trying to update firmware or updating XYZware software.

About XYZPrinter Mac
XYZware 3D printer, model da Vinci AiO for Mac
© 2014 XYZprinting Inc.
Controller for XYZprinting's 3D printer (model AiO).
Update Firmware
Machine S/N : 3S10APTW1TH49S0035
Filament S/N : 3DP01FGBA6RTH45F0115
Version: 1.0 (1A1080)
Firmware: 1.1.1 (181)
XYZware 3D printer, model da Vinci for Mac
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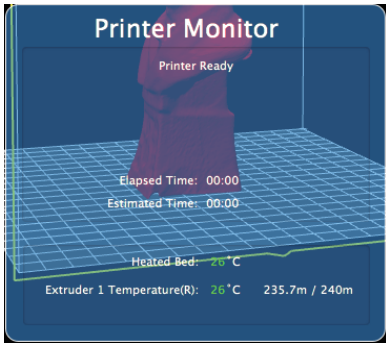
Help Center
Contact Us
or call us directly
0809-016-225(TW)
Other countries?

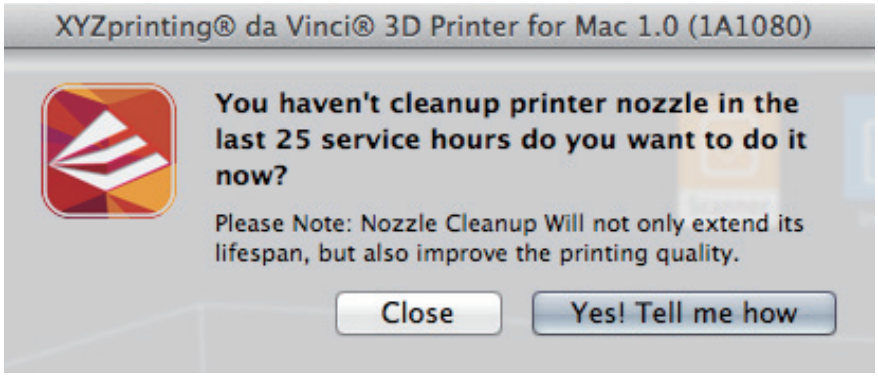
8. Monitor Mode

Temperature of print bed and extruders can be accessed by clicking "Monitor" icon on bottom right side. This function is disabled when the USB cable to printer is removed.



9. Maintenance reminder

Over time, carbon deposits or filament dust buildup on the nozzle may decrease its performance. It is advisable to clean the nozzle after every 25-hour of printing.
After every 25 hours of printing interval, XYZware pops up a reminder as shown below. You may click on “Yes! Tell me how” to watch the tutorial video of nozzle cleaning or refer to the product manual for detailed instructions.


XYZprinting® da Vinci® 3D Printer for Mac 1.0 (1A1080)
You haven't cleanup printer nozzle in the last 25 service hours do you want to do it now?
Please Note: Nozzle Cleanup Will not only extend its lifespan, but also improve the printing quality.
Close
Yes! Tell me how